INTRODUCTION

In 1926 an Irish designer named Eileen Gray, who'd created lots of gorgeous, strange furniture but scarcely a house, began designing a shiplike villa on the south coast of France that would drive the famed architect Le Corbusier wild. Corbu had just announced that a house was "a machine to live in," but Gray thought, No: a house is a person's shell, a skin, and should respond to how she lives. To start designing, Gray studied how she and her housekeeper moved throughout the day; she made diagrams of their motions and those of the sun to reveal natural patterns-loops in the kitchen, deep lines by the windows, meanders through the living room—an organic choreography. The house she then built on rocks by the sea expressed this choreography: a mouthlike entry pulled you in; screens and mirrors unfolded from walls like wings; windows and shutters opened in all directions for the right air, light, or view at any time of day. On her plans she drew lines showing ways you could move, look, and *live* in this house: her pathways transformed to design.

I love how Eileen Gray designed, and really love how much it maddened the bombastic Corbu. I think that Gray's way of working from life to art could describe writing, too. We writers go about our observing, imagining lives, moving onward day by day but always alert to patterns—ways in which experience shapes itself, ways we can replicate its shape with words. We create passages for a reader to move through, seeing and sensing what we devise on the way. And when the reader's done—levitation! She looks down and sees how she's traveled, sees the pattern of the whole.

I used the verb see several times just now because, although we think of narrative as a temporal art, experienced in time like music, of course it's interestingly visual, too; a story's as much house or garden as song. Northrop Frye puts it this way: "We hear or listen to a narrative, but when we grasp a writer's total pattern we 'see' what he means." John Berger atomizes further: "Seeing comes before words." Glancing at a page, we first see text as texture: marks in a white field leave enough space to feel airy or form dense blocks, even weighted with a sludge of footnotes. Looking closely, we see each word as a picture: the part of our brain that recognizes words has a twin

that recognizes faces, and if we never learned to read, both parts would focus on faces. As we pass through the words' looks and into their meanings, our way of "seeing" shifts, now absorbing a stream of visual images conjured by the language. We might develop another layer of vision, too, growing aware of elements that give the story structure: a late scene might mirror an earlier one, creating a sense of symmetry, or a subtle use of color might render an overall hue. Reading on, we travel not just through places conjured in the story, but through the narrative itself. It might feel like gliding in a bayou, pacing a labyrinth, hopping from block to block. Neuroscientists have recorded the inner sensations of reading as "a felt motionless movement through space." Once you've finished reading, that motionless movement leaves in your mind a numinous shape of the path you traveled. A river, roller coaster, wave.

Given all of this, my writer self thinks two things: first, being aware of visual elements such as texture, color, or symmetry can open windows and let us design as much as write. *Text* comes from *texere*, after all: to weave. Next, we can be conscious, deliberate, *innovative*, in the paths we carve through our words.

Goethe calls the path through a text a "red thread" pulling you forward. Henry James speaks of the "figure in the carpet." Ivo Vidan says that what stays in the mind is a "condensed Gestalt," not the book. I like

best how Ronald Sukenick puts it: "Form is your footprints in the sand when you look back."

For centuries there's been one path through fiction we're most likely to travel-one we're actually told to follow—and that's the dramatic arc: a situation arises, grows tense, reaches a peak, subsides. Teachers bid young writers to follow the arc (or triangle or pyramid). If you ask Google how to structure a story, your face will be hammered with pictures of arcs. And it is an elegant shape, especially when I translate arc to its natural form, a wave. Its rise and fall traces a motion we know in heartbeats, breaking surf, the sun passing overhead. There's power in a wave, its sense of beginning, midpoint, and end; no wonder we fall into it in stories. But something that swells and tautens until climax, then collapses? Bit masculo-sexual, no? So many other patterns run through nature, tracing other deep motions in life. Why not draw on them, too?



Patterns could fascinate me because an uncanny one structured my life. When I was four, my parents and another couple traded partners, creating families as symmetrical as moth wings. A diplomat father, a mother, and two little girls the same ages on either side, a boy born to each pair soon after. Both fathers

were in the foreign service (mine Australian; the other, American), and over the years one family toured the eastern hemisphere, as the other toured the western; ditto southern and northern. Our summer, their winter; our day, their night. Geographical mirrors.

Symmetry orders the lobes of leaves and insect wings, so why not my family? When I learned of the Coriolis force, the symmetry got more elaborate: waters and winds spin one way in the northern hemisphere, the opposite way in the southern. Picture hurricanes, oceanic gyres. I saw myself spinning one way in life, my counterpart stepsister spinning the other. So I stole the Coriolis force as a personal pattern, and the clarity, the order, helped me.

Some people love chaos; others crave order. I don't love the coldness implicit in order but know that I need it. There was so much moving before I was twelve that the very state of flux felt constant—changing landscapes, languages, people; even my name, nationality, and accent. I needed ways to translate what rolled past and through me into something fixed. A spider instinct: to net life in image and word. I was always lying on a floor, drawing or writing or designing, catching in shapes the whirr of life. Later, I'd love structures that sorted things, such as the grammar of Latin sentences and how parts cogged together, Linnaeus's branching genera, and the genealogies of myth. Patterns: sense.

A trope of foreign-service life, which is like that instinct to net and akin to how I see narrative: rolling down a tarmac, forehead pressed to glass, as a place I'd lived in a few years stops being a streaming slur around me but, as the plane rises, gradually drops away and becomes distant and still, a form I can look at. There's the main boulevard (where I'd seen a dog hit by a truck), and it bisects a grid of plazas and blocks, all of it hemmed by mountains (I'd run down one's peak, ecstatic). What had been life blurring all around became something to see as a whole and ponder. The first step toward art?

In the language of neuroscientists this would be a shift from "egocentric" spatial knowledge to "allocentric," from understanding what's around you subjectively to taking a more remote view, even an aerial point of view, now seeing overall shape, relations beyond yourself.

And now back to writing, to finding patterns in life and re-creating them in words. Memoirists know that they must "look" back over life to find patterns that give order. We use visual and spatial terms so easily: look back. But this is true for anyone writing any kind of narrative. Yes, there's the word-afterword motion through a story's tunnels, but ultimately that motion takes on a larger shape: the figure in the carpet, footsteps in sand. And how curious that a single shape has governed our stories for years.

The famous arc came from drama. Twenty-five hundred years ago, Aristotle dissected the structures of tragedies such as Sophocles' Oedipus the King to find their common features, much as he might dissect snakes to see if their spines were alike. He found that powerful dramas shared certain features, including a particular path. Here's (some of) what he wrote in Poetics:

A tragedy is an imitation of an action that is complete in itself [with a] beginning, middle, and end. A beginning is that which is not itself necessarily after anything else, and which has naturally something else after it; an end is that which is naturally after something itself, either as its necessary or usual consequent, and with nothing else after it; and a middle, that which is by nature after one thing and has also another after it. A wellconstructed Plot, therefore, cannot either begin or end at any point one likes. . . . To be beautiful, a living creature, and every whole made up of parts, must not only present a certain order in its arrangement of parts, but also be of a certain definite magnitude. . . . Just as . . . a beautiful living creature must be of . . . a size to be taken in by the eye, so a story or Plot must be of . . . a length to be taken in by the memory.

And:

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Every tragedy is in part Complication and in part Dénouement; the incidents before the opening scene, and often certain also of those within the play, forming the Complication; and the rest the Dénouement. By Complication I mean all from the beginning of the story to the point just before the change in the hero's fortunes; by Dénouement, all from the beginning of the change to the end.

Beginning, middle, and end; complication, change, dénouement. Two thousand years later, in *The Technique of the Drama*, Gustav Freytag examined Greek and Shakespearean tragedies and drew a graphic like the pattern Aristotle described, a triangle showing the parts of drama: introduction, rise, climax, return or fall, and catastrophe. This is Freytag's famous triangle or pyramid. John Gardner's *Art of Fiction* helped make the link between tragedy and fiction:

The most common form of the novel is energeic. . . . By his made-up word energeia . . . Aristotle meant "the actualization of the potential that exists in character and situation." (The fact that Aristotle was talking about Greek tragedy need not delay us. If he'd known about novels, he'd have said much the same.) Logically, the energeic novel falls into three parts, Aristotle's "beginning, middle, and end," which we may think of as roughly equal in length and which fall into the pattern exposition, development, and denouement . . .

But shouldn't the fact that Aristotle was talking about tragedy rather than novels indeed delay us? Novels didn't exist for Aristotle and weren't Freytag's subject. Gardner does talk about other structures for fiction, but he firmly favors the causality of the arc and says that Aristotle would, too.

I doubt it. Aristotle analyzed specimens to understand their structures; why wouldn't he dissect actual specimens of fiction? He comes close to saying what Gardner believes, though, when he shifts focus from tragedy to narrative poetry:

As for the poetry which merely narrates . . . it has several points in common with Tragedy: I) The construction of its stories should clearly be like that in a drama; they should be based on a single action, one that is a complete whole in itself, with a beginning, middle, and end, so as to enable the work to produce its own proper pleasure with all the organic unity of a living creature.

But fiction doesn't "merely narrate": this is one of its great potencies. In the centuries that Western fiction has taken to arise, it's evolved to do many things, especially in the most cannibalistic form, the novel. Terry Eagleton sums it up:

The point about the novel . . . is not just that it eludes definitions, but that it actively undermines them. It is less a genre than an anti-genre. It cannibalizes other literary modes and mixes the bits and pieces promiscuously together. You can find poetry and dramatic dialogue in the novel, along with epic, pastoral, satire, history, elegy, tragedy and any number of other literary modes. Virginia Woolf described it as "this most pliable of all forms." The novel quotes, parodies and transforms other genres, converting its

literary ancestors into mere components of itself in a kind of Oedipal vengeance on them.

Drama is just one of many arts that have fed fiction. The arc is a perfect expression for the movement of tragedy as Aristotle saw it, and it's created masses of elegant stories. But given that the kinds of stories in fiction aren't as set as in tragedy, why should anyone insist that the arc form them?

Then there's the arc's irksome sexual aspect. Here's the critic Robert Scholes:

The archetype of all fiction is the sexual act. . . . For what connects fiction—and music—with sex is the fundamental orgastic rhythm of tumescence and detumescence, of tension and resolution, of intensification to the point of climax and consummation. In the sophisticated forms of fiction, as in the sophisticated practice of sex, much of the art consists of delaying climax within the framework of desire in order to prolong the pleasurable act itself.

Well. Is this how I experience sex? It is not. The critic Susan Winnett says, "Meanings generated through dynamic relations of beginnings, middles,

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and ends in traditional narrative and traditional narratology never seem to accrue directly to the account of the woman." However you experience sex, why should it be the archetype of fiction?

But now that Gardner's got me imagining what Aristotle would say of fiction, I want to look at one of the philosopher's core concepts about art forms altogether. I love that he likens specimens of literary art to living creatures, having organic unity-indeed, having souls. "The first essential, the life and soul, so to speak, of Tragedy is the Plot." The term soul here is part of his conceptual framework of hylomorphism. Hylo or hule = matter, and morphe = form; hylomorphism refers to the compound of matter and form that exists in both artifacts and living beings. Matter has potential that is made actual by form. Imagine a lump of clay that someone wants to shape into a bird. That lump has the potential to look like a bird, but only if, along with clay, there exists the abstract idea, or form, of "bird" (and an artist to shape it). Once the clay has been modeled into a bird, it's a compound of matter and form: a piece of art. The form that it could be has actualized the potential existing in that matter. In a living being, the corollary to matter is body, and the corollary to form is soul. Soul animates body to make a living being, just as form animates matter to make a piece of art. So when Aristotle says that "plot" is the "soul" of tragedy, he means that plot is the idea

of a shape that will turn potential into an actualized whole.

Rather than expecting the "soul" or animating shape of fiction to be a plotted arc, why not imagine other shapes? The arc makes sense for tragedy, but fiction can be wildly other. Especially now, when, to survive as a species, it had better exploit all it can that isn't drama. Sukenick says, "Instead of reproducing the form of previous fiction, the form of the novel should seek to approximate the shape of our experience"; Aristotle understood art forms as organic beings. Wouldn't it make sense for the shape of our experience to be organic? Organic, but not necessarily orgasmic.



I first grew restless with the arc and plot and wanted something different in 2001. I was living in Germany and, to learn the language further, met once a month with three women (architects) to discuss a book; one had chosen W. G. Sebald's *The Emigrants*. Sebald was exciting readers on both sides of the Atlantic for his unusual narratives, and I'd just published a novel and begun teaching so was hungry to know more. German didn't come easily, Sebald's sure didn't, but going slowly and following the flows of his syntax led me, at last, to sense: a little like reading Henry James, but in

German. If you think about the difference between parataxis and hypotaxis in sentences you'll see what I mean. Parataxis is linear and sequential: he got up and walked to the window and looked down and decided to go out, etc. Hypotaxis is more spatial, foregrounding some parts of the sentence and letting others recede, more interested in comparative relations among elements than in straight temporality: It was only after he'd woken up and lain in bed awhile, wondering whether he'd look out the window or instead ignore the world outside and step into the closet, that he finally decided to get up. In this sentence you have to wait until the end for the next action: the rest is a mental suspension, considering possibilities, not just watching what happens next. German sentences are like this, withholding main verbs until the end, and The Emigrants as a narrative was like this, too: not about what happened next but instead weaving a net whose design I wouldn't see until I'd finished.

To read each of the book's four narratives was like floating dreamily backward along a dark river. But what most engaged me was trying to see how the parts wove a larger design. "The Butterfly Man," a figure appearing in each part but only faintly linked to "plot," seemed a clue. He appears first as a photograph of Nabokov with a butterfly net, to show what a character looks like. Elsewhere he's a boy chasing butterflies, a man on a mountain urging a character not

to leap, or a man popping out of nowhere with a net. He seems to be an emblem recurring with variations, a ghost of an emerging idea, or like a figurehead at the bowsprit, leading me on. But to what?

Near the end of the book, I'd begun hatching a theory and was translating as fast as I could to see if it would hold. But the book was due at the library, and as I handed it over and asked for an extension, the librarian crisply said *Nein* and off the book sailed on a conveyor belt. I went to every bookstore in Karlsruhe, Durlach, and Heidelberg, but no one had Sebald's books, because he'd just been in the tragic crash that killed him.

It took weeks to get a copy, an English translation now. When I opened it in a grocery store checkout line, a name-change for the last narrative's main figure—legally necessary in the English edition, it turned out—startled me so much that I put the book back down and forgot it under the lettuce: the original name had been my key. Only the next day, when the store reopened, could I recover the book and the theory.

More about this in a later chapter. The point now: Sebald's *Emigrants* was the first book to show me a way beyond the causal arc to create powerful forward motion in narrative: motion less inside the story than inside your mind as you construct sense. This motion involved *pattern*, arising (I later learned) "from

the spatial interweavings of images and phrases independent of any time-sequence of narrative action" (Joseph Frank, "The Idea of Spatial Form"). The Butterfly Man was that image.

Sebald was hardly alone in losing interest in causal plot and the persistent arc. But in twenty years of teaching, I'm bothered again and again that so many smart young writers feel obliged to follow it. It wasn't a given as Western fiction crawled to life, but gradually became a convention, with writers resisting it often. Other cultures evolved fiction differently from the start: Ming Dong Gu explains that Chinese fiction grew with an emphasis on lyricism, not constrained by "the Platonic-Aristotelian restriction of poetics to imitation and narration." It relies on pattern, repetition, and rhythm and is "organized on a structural principle different from the time-based, direction-oriented, and logically coherent principle of the Western narrative."

As Nigel Krauth puts it, "If one needs a short cut to understanding the nature of the Radical in [Western] literature, one might think first about concepts related to the singular, the linear, the beginning-middle-and-end structure, and think how a writer can replace them with multiplicity, collage or a rhizome of fragments." Think of the Modernists' shift from the "omniscient" narrator toward narratorial consciousness that follows the tangles of human sensibility.

Or the many multistranded novels that arose early last century, the Oulipists with their fabulous strictures and the possibilities these strictures opened, the Nouveau-Romanists and their experiments with objectivism, and so on.

Writers have proposed other patterns for narrative, too. Italo Calvino says that in *Invisible Cities*, thinking of the shape of a crystal, he "built up a manyfaceted structure in which each brief text is close to the others in a series that does not imply logical sequence or a hierarchy, but a network in which one can follow multiple routes and draw multiple, ramified conclusions." Others might call this pattern nodular. Gottfried Benn spoke of an orange-shaped narrative, in which all segments radiate from or lean toward a central pith. Ross Chambers coined the (terrible) term "loiterature" for narratives that digress extravagantly, that are often labyrinthine. Krauth speaks of reading radially to apprehend fragmented works:

It's like picking up a scrap of evidence—you know there is a whole circle of story around the piece—and you keeping [sic] on going to gather more. Perhaps our "instinct" for reading linearly is becoming less innate. While I know what I describe is a radical way of reading, I would actually call it radial: a kind of reading ultimately

devoted to finding a meaningful centre to the swirl of narrative elements presented, but which is prepared to wait (for up to 150 pages) for the ways in and out of that centre to emerge.

And Joseph Frank launched many of these conversations with his groundbreaking essay "The Idea of Spatial Form," where he described a species of fiction in which juxtaposition or association replaces temporal order, each piece a part of a puzzle, or the whole forming a network of sense.

In the decade since first reading Sebald, I've sought powerful narratives that hint at structures inside them other than an arc, structures that create an inner sensation of traveling toward something and leave a sense of shape behind, so that the stories feel organized—not just slice-of-life. Recently I began dissecting some of these to see what they had in common. What I found: many structures that recur in these texts coincide with fundamental patterns in nature.



Matter fills space according to a host of natural laws that again and again yield the same patterns. This I did not know until recently, when I read Peter Stevens's

brilliant 1974 book Patterns in Nature while riding the Amtrak to New York. I actually went through a cascade of epiphanies as I read, turning again and again to stare out the window at the world Stevens had just transformed. Philip Ball's recent book with the same name expands and illustrates gorgeously how a cluster of patterns recurs at every scale in our world, atomic to galactic. The wave is one. There's a reason we're drawn to it, whether viewing a drama with swelling and collapsing tensions or watching entranced as one wave after another breaks on shore: a wave is a clear instance of energy charging static matter until that energy is spent and equilibrium returns, elegant and satisfying. Arcs or waves exist all around as waves of light and sound. They can create powerful narratives, but it might be more freeing, as writers, if we think not of a story always following an arc, but of a reader's experience absorbing the story as doing so. A tentative entry leads to greater involvement until the words stop and you're back in your own world.

But patterns other than the arc are everywhere. Here are the ones Stevens calls "nature's darlings." SPIRAL: think of a fiddlehead fern, whirlpool, hurricane, horns twisting from a ram's head, or a chambered nautilus. MEANDER: picture a river curving and kinking, a snake in motion, a snail's silver trail, or the path left by a goat grazing the tenderest greens. RADIAL or EXPLOSION: a splash of dripping

water, petals growing from a daisy's heart, light radiating from the sun, the ring left around a tick bite. BRANCHING and other FRACTAL patterns: self-replication at lesser scale, made by trees, coastlines, clouds. And CELLULAR patterns: repeating shapes you see in a honeycomb, foam of bubbles, cracked lakebed, or light rippling in a pool; these can look like cells or, inversely, like a net.

These patterns aren't just around us; they inform our bodies, too. We have wiggling meanders in our hair, brains, and intestines; branching patterns in capillaries, neurons, and lungs; explosive patterns in areolas, irises, and sneezes; spirals in ears, fingertips, DNA, and fists. Our brains recognize and want patterns. We follow natural patterns without a thought: coiling a garden hose, stacking boxes, creating a wavering path when walking along the shore. We invoke these patterns to describe motions in our minds, too: someone spirals into despair or compartmentalizes emotions, thoughts meander, heartbreak can be so great we feel we'll explode. There are, in other words, recurring ways that we order and make things. Those natural patterns have inspired visual artists and architects for centuries. Why wouldn't they form our narratives, too?

The digressiveness of "loiterature," the cellularity typical of the most spatial fiction, a text with various branches, a narrative arranged like an orange: maybe all of these different approaches can be seen within the larger scheme of natural patterns. What seems to be the generative impulse or starting point for a story; how does it move in time; how does it deploy repetition? A digressive narrative meanders; at times it flows quickly and at times barely at all, often loops back on itself, yet ultimately it moves onward. A spiraling narrative might move around and around with a system of rhythmic repetitions, yet it advances, deepening into the past, perhaps, or rising into the future. Essayists speak of spiraling form in reflective personal pieces; reflective, lyrical novels might do the same. A radial narrative could spring from a central hole-an incident, pain, absence, horror-around which it keeps circling or from which it keeps veering, but it scarcely moves forward in time. A fractal narrative could branch from a core or seed, repeating at different scales the shape or dynamic of that core, possibly branching on indefinitely. And cellular narratives come in like parts, not moving forward in time from one to another but creating a network of meaning.

Meander, spiral, radial, fractal, cell. Perhaps there are even correlations between kinds of stories and certain patterns, like tragedians following the arc.

This way of seeing structure in narrative might seem reductive; that's partly my point. And you might see slightly different patterns from those I see in the narratives examined in the coming pages. But what I hope is that thinking about patterns other than the arc will become natural, that evolving writers won't feel oppressed by the arc, that they'll imagine visual aspects of narrative as well as temporal, that they'll discover ways to design, being conscious or playful with possibilities. How can you spread color across a story? Make texture with different kinds of words or sentences or zones of white space? Create repetitions or symmetries to strengthen (or trouble) a sense of movement? Even arcing fictions can be designed, with texture, color, symmetry, or repetitions graphable as wavelike stripes, these elements working beyond or with narrated incidents to create further motion and sense.

In this book I'll look at ways that writers have done all of this, exploiting the visual and finding patterns other than the arc inside their stories. This will be a museum of specimens.